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OFFICE OF
PREVENTION, PESTICIDES AND
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MEMORANDUM

SUBJECT: Revised Toddler Non-Dietary Hand To Mouth Risk Estimates For Fipronil Based on Short- and Intermediate-Term Oral Residential NOAELs. DP Code 269725; Submission: 547814; ID#: 7F04832; PC Code 129121

FROM: Mark I. Dow 
Registration Action Branch 1
Health Effects Division 7509C

THRU: G. Jeffrey Herndon, Branch Senior Scientist 
Registration Action Branch 1
Health Effects Division 7509C

TO: Sarah Levy, Chemist
Registration Action Branch 1
Health Effects Division 7509C

In a 22 MAY 1998 memorandum (G. Kramer, M. Copley and J. Evans; DP Codes 242090, 245656, 245656, 245627 & 241670), J. Evans estimated a toddler's non-dietary, hand-to-mouth exposure to fipronil as a result of its use as a spray on pets. Based on study data, he found that "The respective non-dietary, oral (hand-to-mouth) ingestion estimates for 1%, 0.5% and 0.4% Dislodgeable [sic] rates are 0.00003 mg/kg/day, 0.00001 mg/kg/day and 0.00001 mg/kg/day."

In October 2000, the HIARC revisited certain aspects of fipronil toxicology. In the HIARC meeting, Short- and Intermediate-term, non-dietary, oral, residential endpoints were identified. M. Copley (E-communication 16 Oct. 2000) indicates that "Short- and Intermediate-term oral residential NOAEL is < 0.1 mg/kg/day, UF of 3 for no NOAEL, 100 for intra and interspecies variation. Total LOC for MOE = 300...."

Using 0.1 mg ai/kg bw/day as the residential, non-dietary, oral (hand-to-mouth) NOAEL and the dislodgeable rates estimated by Evans (1998), revised MOEs are as follow where MOE = NOAEL (mg ai/kg bw/day) ÷ Average Daily Dose (mg ai/kg/bw/day):
0.1 mg ai/kg bw/day ÷ 0.00003 mg ai/kg bw/day = 3,333
0.1 mg ai/kg bw/day ÷ 0.00001 mg ai/kg bw/day = 10,000

cc: M.Dow(RAB 1)
RDI: G. Herndon, D. Vogel
M.I.Dow:806U:CM2:(703)305-5533:7509C:RAB1
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